

INDEX OF SURGICAL PROGRESS.

CHEST AND ABDOMEN.

I. A Case of Resection of the Rib and Pleura, for an Osteochondroma of the Rib. By P. RIESENFELD (Hamburg). The author reports the follow interesting case which was operated on by Dr. Alsberg, in the Jewish hospital of Hamburg, in July, 1888, when a portion of a rib and a piece of the pleura about the size of a silver dollar were removed on account of a new growth. The patient a female æt. 22 years, was admitted to the hospital July 16, 1888. Previous history good. In April, 1888, patient noticed on the left side of chest a small swelling about the size of a walnut, which swelling steadily increased in size, but caused no pain or interference with the general health.

Examination shows a delicate woman. On the left side of the thorax, on the eighth rib between the anterior and middle axillary line, is a tumor which reaches above into the seventh and below into the eighth intercostal space. This tumor is about the size of a goose egg, and is hard and immovable; its surface is smooth in some parts and roughened in others. The skin over the tumor is freely movable and not painful on pressure.

The operation was performed on July 15. Flaps consisting of skin and muscular tissue were made and the eighth and ninth ribs exposed. It was then seen that the tumor surrounded the eighth rib. The periosteum over the eighth rib was dissected away for a distance of five centimeters in front and behind the tumor, and the bone was then cut through. The tumor was found to be adherent to the pleura, and a portion of the latter had to be cut away, and air entered into the chest cavity.

The pleural sac was not washed out. The wound was closed by

deep and superficial sutures, a strip of iodoform gauze having previously been inserted at its lower angle so as to insure drainage. An iodoform gauze and moss dressing was then applied. The pulse remained good throughout the operation.

The evening of the operation the patient complained of dyspnoea which increased steadily and was followed by a cough on the second day. The evening of the third day the temperature rose to 38.6°C. and the pulse to 140, but this rapidly subsided under proper therapeutic measures, and from the sixth day the pulse, temperature and respiration were normal.

On the fourth day the dressing was changed and the strip of iodoform gauze replaced by a drainage tube, which was removed on the tenth day.

In four weeks the patient left the hospital completely cured, and lung having completely expanded again.

Up to the time of writing, *i. e.*, six months later, there is no return of the disease.

Microscopical examination of the tumor showed it to be an osteochondroma, and in one place there was some mucous tissue.

The author has only been able to collect in literature sixteen cases where the rib and pleura were resected on account of new growths. Five of these cases terminated fatally.—*Deutsche Medicinische Wochenschrift*, No. 16, 1889.

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II. A Case of Subphrenic Echinococci. By KARL LOEBKER (Greifswald). At a meeting of the Greifswald Medical Society, the author reported the following case, which he considers not only interesting from its rarity, but also on account of a laparotomy being performed in the presence of a general peritonitis.

The patient, a woman æt. 33 years, had suffered from occasional pains in the right hypochondriac region, for the past nine years. Four years ago she suffered from a jaundice which lasted several weeks and was accompanied by severe pains in the right side. In September, 1888, she had another attack of jaundice, accompanied by fever, and then for the first time she noticed a swelling in the hypochondriac

region. This attack of jaundice lasted two days, and was attended with severe pains, especially in the left side, and radiating to the arm and shoulder. The swelling, which rapidly extended to the left side was painted with iodine. On November 18, the patient had severe fever, and great swelling and tympanitis of the abdomen. On November 21, she was seen by the author, and he diagnosed an echinococcus cyst with general peritonitis. The heart impulse was superficial and accelerated 130°, respirations rapid and shallow. Temperature 39.6°C. Abdomen greatly distended and extremely tender. The right hypochondrium and epigastric region were rendered prominent by a swelling which extended downward nearly as far as the umbilicus. On the right side of the chest the percussion dullness extended upward to the fourth rib, on the left side the cardiac dullness was merged in that of the tumor. The lungs appeared normal. The abdominal swelling was resistant except over a small area in the epigastrium between the xiphoid appendix and the left curvature of the ribs; here the pains were especially severe and distinct fluctuation was felt.

These symptoms made the writer believe that there was a suppurating subphrenic echinococcus cyst situated specially over the anterior portion of the convex surface of the liver, and that it pushed this organ downward and the diaphragm upward. Aspiration of the fluctuating point yielded a yellowish pus detritus but no hooklets.

The author then proceeded to do a laparotomy; an incision was made from the highest point of the epigastrium, to the left of the xiphoid appendix, downward for a distance of ten centimeters, dividing the left rectus abdominalis. On opening the peritoneal cavity a large quantity of a cloudy serous fluid escaped. The margins of the peritoneal incision were immediately sutured to those of the skin. The left lobe of the liver which now presented in the upper angle of the wound was transfixed by a loop of thread. The ribs being pushed upwards the liver was forced down by the fingers, so that the loop corresponded to the lower angle of the wound, at which point the loop was drawn through the abdominal wall and securely tied. Thus the cysts which were still covered by liver substance were exposed at the upper part of the wound. Distinct fluctuation was present and a trocar allowed the

escape of a small quantity of fluid, but the canula soon became occluded. The liver was then stitched by additional sutures to the margins of the abdominal wound, and the abdominal cavity shut off as much as possible. The cysts were then opened by an incision of the size of the abdominal wound. About two litres of purulent fluid containing numerous vesicles escaped immediately, and a large portion of the mother sac was removed.

The cyst occupied the area between the diaphragm and the liver, extending upward on the right side to the level of the fourth rib, but not going so high on the left.

The cavity was irrigated with a luke-warm boro-salicylic solution, till the fluid returned perfectly clear. No drainage was used, but a large antiseptic dressing was applied over the wound.

The patient was somewhat collapsed after the operation, but recovered. There was only slight fever the next day, but this soon subsided and the patient made a successful recovery.—*Deutsche Med. Wochen.* No. 1888.

III. Two Cases of Echinococcus of the Spleen. By Dr. FEHLEISEN (Berlin). At a recent meeting of the Surgical Society in Berlin, the author, presented two cured cases of echinococcus of the spleen. The first case was that of a woman æt. 38 years, who had been operated on in November, 1886, by Prof. Bergmann. The patient had been complaining of pain in the left hypochondriac region, radiating into the lumbar region, when in August, 1883, she discovered a movable tumor about the size of the fist, situated immediately under the ribs, on the left side. This tumor continually increased in size, and at one time was diagnosed by a physician as an ovarian tumor with a long pedicle, owing to the extreme mobility of the growth. When the patient was first seen by Bergmann, she had a smooth, freely movable, indistinctly fluctuating tumor about the size of man's head, occupying the left side of the abdomen. Exploratory puncture gave a clear fluid containing some hooklets. Examination under an anæsthetic showed that the tumor was not connected with the genitals, liver or kidneys, so that it could be pretty positively diagnosed as a hydatid floating spleen.

Floating spleens being in themselves painful and dangerous, Prof. Bergmann resolved to extirpate the tumor. This he did on November 5, 1886; and the operation, which was extremely difficult owing to the numerous adhesions of the cyst to the intestines and mesentery, confirmed the diagnosis. The patient made a good recovery: No change in the composition of the blood has been discovered since the operation. The blood was normal before the removal of the spleen and has remained so ever since.

Excision of the spleen is rare. Up to the end of 1887, Adelman collected only 54 cases, 37 of which were followed by death, and of the 17 cured cases, only 8 or 9 have been carefully followed up. Pean, in two successful cases, one of cyst, the other of hypertrophy, a few weeks after the operation found a marked increase of the white and a diminution of the red blood globules. Czerny, (floating spleen,) found no changes in the blood, only a transient swelling of the lymphatic glands. Credé, in his case (cyst), found the blood normal before operating; after removal there was a marked diminution of the red, and an increase in the white blood corpuscles; there was also an inflammatory swelling of the thyroid gland and general disturbances of nutrition, but everything returned to normal condition four months and a half after the operation. Frangolini (leukæmic hypertrophy) found before operating that the white blood cells were increased five fold; four months after removal of the spleen the blood was normal. Billroth (sarcoma) observed in the third week after the operation an increase in the white blood cells. In Albert's case, (hypertrophied floating spleen), before operating, the relative number of red blood cells were to the white blood cells as 1,600,000 red to 26,000 white in 1 c.cm. of blood; three weeks after the operation the relation was 3,600,000 red to 12,000 white in the same amount of blood. Donat (floating spleen with previous intermittent fever) found before operation that the relation of the white to the red globules was as 1 to 250, six months after as 56 to 10,000. Martin (floating spleen) states that the examination of the blood in his case, both before and after the operation showed nothing abnormal.

In the case where Trendelenburg removed the normal spleen during

an operation for the extirpation of a retro-peritoneal sarcoma, the progress during the first three weeks was favorable, but later on there were disturbances in the nutrition of the patient; the blood was examined at three different times and found hydræmic, but without an increase in the number of white cells. The patient died a short time after, having suffered from cedema of the lower extremities.

Bergmann's case is the second in which the spleen was removed for a hydatid cyst. The first case was operated on by Koerberle in 1873, but ended fatally.

The second case was operated upon in February, 1888. The patient, a boy æt. 11 years, complained for the past 3 years of lancinating pains in the splenic region. One year ago, the mother noticed a tumor which was painful on pressure. The pains increased very much, and in January, a tumor of the spleen, about the size of an orange, was found; this tumor fluctuated distinctly, and was diagnosed as an hydatid cyst. The diagnosis was confirmed by an exploratory puncture. On February 25, the cyst was exposed and sewed into the wound, but adhesion to the abdominal wall did not take place. Four days later the cyst was incised and its contents evacuated, and found to contain numerous hydatids. Healing took place rapidly.

Solitary echinococci of the spleen are rare. Mosler in 1884 collected 30 cases, 12 of which had been accidentally discovered at post-mortem examinations, and the remaining 18 had been diagnosed during life—*Deutsche Med. Wochenschrift*, No. 49, 1888.

IV. The Operative Treatment of Tubercular Peritonitis. By F. SPAETH (Hamburg). The writer reports four cases of tubercular peritonitis, treated by laparotomy, in Dr. Prochownick's clinic in Hamburg. The patients were all females between the ages of 32 and 43.

The symptoms differed greatly in the four cases, but in all the inguinal glands on both sides were considerably enlarged. In every case tubercle bacilli were found. The author thinks this very important, for many cases of chronic disease of the peritoneum, which at first sight appear to be tubercular, are found on microscopic examination

to be nothing more than a peritonitis with a nodular formation, a simple lymphonata of the peritoneum. To these errors of diagnosis may be attributed in some cases the unsuccessful results of laparotomy.

So far, little attention has been paid to the demonstration of tubercle bacilli in the excised pieces. Thus in forty-one of Kiimmel's cases the results of the microscopical examination are only mentioned in eleven cases, and in only five of these were bacilli reported present. Of the writer's cases, one died of collapse five days after operation, to which condition a marked atrophy of the kidney contributed in a large degree. The second case died of acute phthisis three months after operation. The third case died of intestinal tuberculosis, and the fourth is now dying of the same disease.

The unfavorable results can not be attributed to the operation.

The author terminates his paper with the following conclusions:

1. In primary tuberculosis of the peritoneum without implication of other organs, laparotomy may act as a curative agent and is to be recommended.
2. In tuberculosis of the peritoneum where the female genitals are involved in the process, the operative treatment has not given any satisfactory results.
3. In tuberculosis of the peritoneum due to a tubercular enteritis, the operative treatment is only palliative.
4. In genital tuberculosis, unaccompanied by peritoneal tuberculosis, early radical operation is to be urged. The indications for operation are not readily determined, owing to the almost impossibility of making a bacteriological diagnosis before laparotomy.
5. Primary tubercular peritonitis is a much rarer form of disease than has heretofore been thought. Hence care should be exercised in making a diagnosis, and a bacteriological examination of every case should be made.—*Deutsche Med. Wochens.*, No. 20, 1889.

F. C. HUSSON (New York).

V. Extirpation of the Spleen. By Dr. NIKOLAI SOKOLOFF, (St. Petersburg). The author has collected from international literature, 65 cases of total splenectomy for various morbid states of the organ,

with 24 recoveries and 41 (63.07%) deaths. Of the number, in 20 cases the operation was performed for leukæmic enlargement, with 1 recovery and 19 (95%) deaths; in 22, for hypertrophy of various origin (including malarial), with 4 recoveries and 18 (81.8%) deaths; in 13 for floating spleen, with 11 recoveries and 2 (15.38%) deaths; in 4 for cysts, with 3 recoveries and 1 death; in 2 for hydatid, with 2 recoveries; in 2 for sarcoma, with 2 recoveries; in 1 for suppuration (recovery), and in 1 for amyloid disease (death).

Analyzing the biological aspect of a "spleenless state" of the animal organism, as well as the individual groups of the cases operated upon [which include, beside those collected by Adelman (*Arch. f. Klin. Chirurgie*, vol. 35), the cases reported by Roswell Park (*ANNALS OF SURGERY*, Nov., 1888, p. 380), J. McCann (*Ibid.*, May, p. 394), Liebmann, Kocher, Orłowski, (*Gazeta Lekarska*, 1887), Wright, McGraw (2 cases), Lawson Tait, Spencer Wells, Maas], Dr. Sokoloff lays down the following general postulates: 1. The spleen represents a highly important organ directly connected with the formation of hæmoglobine [as has been pointed out by Ehlich, and Bizzozero and Salvioli, and proved especially by Vinogradoff who, experimenting on dogs, invariably observed a steady and permanent decrease in the proportion of hæmoglobine; *vide the Vratch*, Nos. 6 and 7, 1883]. 2. The operation of total removal of the organ in man is both practicable and, under certain conditions, justifiable. 3. Leaving aside traumatic lesions of the spleen, splenectomy may be justified and indicated in the following cases: *a*, new growths; *b*, cystic degenerations; *c*, echinococcus; *d*, severe (but not mild) forms of wandering spleen. 4. A primary hypertrophy of the spleen does not occur in reality; hence it cannot possibly constitute an indication for the operation. 5. As to any secondary enlargement of the organ, as caused by malaria, various diseases of the liver, heart, lungs, blood-vessels, etc., they should be altogether discarded from the list of indications for splenectomy. The surgeon should always keep in his mind, *a*, an enormous mortality from the operation; *b*, possibility of involution of the morbid process (as in malarial cases), and *c*, the fact that even an enlarged or partially degenerated spleen continues to carry out its highly

important biological functions (including the utilization of such highly organized materials as pigment). [It is very interesting to note, in connection with the subject, that Professor S. D. Kostnerin, of Kharkov, has observed in spleenless dogs the development of multiple vicarious small-sized spleens, situated in the major omentum and supplied with Malpighian corpuscles, reticular stroma, etc.; in short, having a genuine splenic structure. The author notes that the fact establishes a perfect morphological analogy between the omentum and a lymphatic gland. *Vide the Transactions of the Third General meeting of Russian Medical Men, at St. Petersburg, No. 4, 1889, p. 132.*—Ed.]—*Ejendelnaia Klinitcheskaja Gazeta*, 1889, Nos. 13, 14, 15, 16 and 17.

VI. Extraction of a Needle from the Rectus Abdominis.

By Professor TIMOFEI I. BOGOMOLOFF, (Gatchina, Russia). A young seamstress sought the author's advice on account of incessant (day and night) circumscribed pain in the left hypochondrium, which had appeared about $5\frac{1}{2}$ years ago, after she had pricked herself with a sewing needle during a struggle with a friend of hers. She had loudly screamed out from most intense pain at the time, but, on searching about her body and dress, found only a broken ear of the needle, its remaining portion having disappeared without trace. Since that moment she had been tormented with an acute pricking pain at a point slightly to the left from the linea alba and in $4\frac{1}{2}$ fingers' breadth above the navel, increasing on her bending forward or to the left side and making her unable to work with the sewing machine. She had been examined by a number of surgeons, but invariably with negative results; then she had applied to as many physicians who had diagnosed some "reflex affection" as well as "gastric disturbance," and treated her accordingly. The pain, however, had persisted, the girl gradually becoming highly nervous and emaciated. On examining the painful spot, Professor Bogomoloff at once detected the presence of a "thin, thread-like hard cord," deeply embedded in the left rectus abdominis. Having opened (under ether spray) the sheath of the muscle, he succeeded (not without difficulty) in extracting a fragment of a blackened

needle, $1\frac{1}{2}$ cm. long, which was very firmly jammed between muscular bundles. The wound was closed with six sutures and dressed antiseptically to heal kindly in four days. The girl's inveterate "reflex affection" disappeared "as if by magic."—*Medicina*, No. 13, 1889.

VALERIUS IDELSON (Berne).

VII. On the Early Operative Treatment of Perityphlitis Stercoralis from Perforation of the Vermiform Appendix. By C. KRAFFT (Lausanne). *Ubi pus, ibi evacua*. This appendix occurs in man, the ourang outang and the wombat, but is absent in all other omnivora. Its purpose is still unknown.

Its form and position and various mechanical causes occasion the stoppage of excrement in its canal; this forms concretions, etc.

The forms of perityphlitis without definite signs of phlegmon or abscess have always been treated on general medical principles. Krafft essays to prove that the treatment of perityphlitis belongs to the domain of surgery, and that a positive cure free from relapses is only to be expected from operative treatment. This will not seem as radical if we recall two well settled facts; first, that present methods do not prevent recurrences; second, that perityphlitis is always accompanied by the development of a pus-depot. He urges that a person who has apparently recovered from a perityphlitis appendicularis is ever after in danger of a relapse, or worse, of a perforative peritonitis. Of 106 cases which he has seen and collected, 24 had had previous perityphlitis and this number must be below the reality. This had usually been from 1 to 3 years previously, in one case 20 years.

In childhood perityphlitic abscesses frequently undergo resorption, but in adult life rarely.

As to the second fact he states that of the above 106 cases an autopsy was made in 84, and that in each of these an ileo-cæcal abscess was found; an operation was done on 8—without any symptom of abscess or phlegmon—and pus found in each, whilst in the other 14 the abscess discharged simultaneously into the cæcum or elsewhere. Autopsies after perityphlitis show that the etiology and anatomical course of the disease is very typical and nearly always the same. Matter-

stock found perforation of the appendix in 132 of 146, and amongst children in 37 of 49; Fenwick (1884) found it in 113 of 129, and a neighboring abscess in 16. The perforation is usually at the free end, but when at some other point it may be circular, and, so to speak, amputate the appendix. The cause is usually a fecal concretion—63 times to 9 foreign bodies in Matterstock's 146 cases; 27 times to 3 foreign bodies in his 49 children; 36 times to 4 foreign bodies in Krafft's own 106 cases, whilst frequently they become lost in the pus. In size these calculi range from that of a lentil to that of a bean. Chemical analysis (Volz, 1843; Bierhoff, 1878) shows as components, phosphate of lime, magnesia, carbonate of lime, cholesterin, traces of chlorine and of sulphur.

The appendix often becomes adherent to neighboring organs. Toft found traces of inflammation in one-third of all cadavers between 20 and 70 years, also ulceration of the appendix in 5 % of all. The absorbing surface of the appendix is very large in proportion to its lumen thus favoring fecal solidification. The solitary follicles yield a lime containing secretion; additional layers form; thus the calculus enlarges, becomes incarcerated, interferes with the blood supply, and causes ulceration. Cherry-stones, beans, orange-pits, etc., are the decided exceptions; a plum-stone cannot pass a normal Gerlach's valve, and a cherry-pit can only be introduced with great difficulty. Before perforation and the certain formation of an abscess, adhesions have formed, usually sufficient to prevent a general peritonitis. The omentum in the region of the right iliac fossa is thickened and adherent to overlying loops of intestine. Commonly there are several small, flattened, more or less separated abscesses containing fecal pus. Usually 1-3 to 1-2 the length of the appendix lies in the retro-cæcal cell-tissue, though frequently it projects wholly into the peritoneal cavity, still this question is of little moment since fixation in the iliac fossa has usually preceded.

Operative methods are briefly discussed. The writings of Deahna, Mahomed, Edward Bull and Gaston are used to support the prophecy that in a few years every retro-cæcal abscess, even after the subsidence of all symptoms, will be opened, the appendix tied and excised. Still

at present operative indications require an absolutely certain diagnosis of the perityphlitis and the presence of severe symptoms. He urges great care in palpation of the abdomen, the avoidance of purgatives and elysters, the possible importance of rectal examinations.

As to time of operating he cites Fitz's figures of average duration in fatal cases (*Am. Jour. Med. Sci.* 1886, Oct.). In general it may be said that if the diagnosis of perforation is certain, the operation can not be done too soon, but is often done too late. He prefers the typical incision for ligation of the right common iliac as giving more room than that of Mahomed for the external iliac.

Progress slowly through the more or less indurated tissues, cut always toward the iliac fossa, avoid opening the peritoneum if possible, tie the appendix at its root and sew the stump to the bottom of the wound, leave a large drain reaching to the bottom of the cavity, irrigate daily. If the peritoneum is injured, it must be sewed up and then gives, as to danger of the peritonitis, the same prognosis as extirpation of the rectum with opening of the peritoneal cavity.

Volkman adds a note that last summer he and Dr. Krause operated by free incision in two cases, finding the concretion and securing a rapid cure in each.—*Volkman's Klin. Vorträge*, No. 331, Jan. 15, 1889.

WILLIAM BROWNING (Brooklyn).

VIII. Ether Irrigations in Strangulated Hernia. By Dr. ANNA J. BRUSTEIN (Moscow).—The author describes the case of a woman with an incarcerated umbilical hernia, of the size of a man's fist, in whom, after all ordinary procedures for reduction had failed, she resorted to the irrigation with a small jet of ether, at the same time continuing the taxis manipulations. In 3 or 4 minutes the reduction was effected with striking ease. In common with Drs. Zeinemann [who has been extensively practicing the method since 1882, and that with invariable success; *vide* the *Wiener Medizinische Blätter*, No. 2, 1882.—ED.] and E. Birt (*Lancet*, May 4, 1889), Dr. Brustein believes that the main action of local etherization should be attributed to a great rapid contraction of the intestinal coat, as well as

of volume of the hernial gaseous contents, which is caused by the evaporation of ether, accompanied by a great loss of heat.—*Novosti Terapii*, November, 1888.

IX. Ether Irrigations in Strangulated Hernia. By Dr. IVAN N. DRAKIN (Kharkov).—The author eulogizes ether irrigations as an excellent means for reduction of strangulated hernia. He simply pours a teaspoonful of ether over the hernial tumor every quarter or half hour, keeping it covered with compresses during the intervals. As a rule, after 3 or 4 tablespoonfuls, the intestinal loops slip down into the abdominal cavity by itself; in some cases, however, slight pressure should be applied. In the case of incarcerated scrotal hernia, it is advisable to irrigate with a mixture of ether (20 parts) and hyoscyamus oil (4). When applied sufficiently early, the method is said to give most brilliant results. [As far as the European Continent is concerned, the method was first introduced by Dr. Finkelnstein, of Jassy, in Roumania, who published in the *Berliner Klinische Wochenschrift*, July 14, 1882, 54 consecutive cases successfully treated by him after the plan during 11 years. It appears, however, that Dr. F. P. Atkinson, of Surbiton, has resorted to taxis under the ether spray even as far back as 1865; *vide* the *Lancet*, May 4, 1889, p. 911. In Russia, Finkelnstein's method was successfully employed by Drs. N. Krasovsky, of Salobeliak, in 2 cases (*London Medical Record*, April, 1884, p. 149); A. Filatoff, of Rijsk, in 1 (*ibid.*, May, p. 197); D. V. Bartosz, of Romny, in 17 (*ibid.*, April, 1885, p. 148). In the *Lancet*, April 27, 1889, p. 836, Dr. H. W. Marett Timz, of London, has described a case of femoral hernia reduced by aid of ether spray. The author asking about information on the subject, Dr. Ernest Birt, of Wakefield, stated (*ibid.*, May 4, p. 910) that he applied the procedure in several cases of his own and found it equally effective in all.—Ed.] *Proceedings of the Kharkov Medical Society*, 1888, No. 10.

X. On Radical Cure of Inguinal Hernia by Barker's Operation. By DR. SAMUÏL O. GRUSENBERG (St. Petersburg).—Dr. Grusenbergh, house-surgeon to the Obikhovsky Hospital for Men, describes eleven cases of inguinal hernia, admitted between March

and October, 1888, in which Professor Arthur Barker's radical operation (*British Medical Journal*, December 3, 1887, and *ANNALS OF SURGERY*, July, 1888, p. 14) was performed by Dr. A. S. Troianoff and himself. The cases refer to patients æt. from 19 to 45 years, belonging mostly to working classes and suffering, seven from strangulated and four from reducible hernia. In several patients there existed various complications, such as hydrocele, firm and extensive omental and intestinal adhesions, gangrene of the bowel (requiring resection), alcoholic delirium, etc. The operation was performed under antiseptic precautions. It must be also added that, 1, in every one of the cases the hernial sac was excised (and was left *in situ*, as in Barker's case); 2, instead of Liston's needle an ordinary curved one was employed; 3, except one case where catgut was used, only silk sutures were inserted. The after-period ran its course invariably very well. In six cases the wound healed *per primam* (including the catgut case); in five, *per granulationem*. In one case only relapse occurred; in the remaining ten the results left nothing to be desired; the patients returned to their hard work (carrying great weights, etc.), and on repeated examinations, showed no signs of any hernial protrusion, in spite of their having discontinued wearing the truss. The general conclusions arrived at by Dr. Grusenbergl (as well as by all his colleagues of the Obŭkhovsky Hospital) may be summed up thus:

1. Barker's operation represents actually a radical procedure, since by obliterating the inner ring, it prevents abdominal viscera penetrating into the inguinal canal and incarcerating in the latter or the outer ring.

2. The operation is characterized by extreme simplicity and technical ease, while being quite safe.

3. It should be performed in all cases of herniotomy.—*Transactions of the Third General Meeting of Russian Medical Men at St. Petersburg*, No. 8, 1889.

XI. Laparotomy for Hepatic Tumor. By DR. NIKOLAI P. ENGELHARDT (Smolensk, Russia)—An emaciated inn-keeper, æt. 28 years, of drinking habits, applied on account of a gradually increasing

abdominal tumor, associated with occasional local pain, anxiety, nausea, hiccough and constipation. On examination, the right hypochondrium was found to be occupied with a movable, smooth, elastic, "as if fluctuating," globular tumor, apparently connected with the liver. An exploratory tapping withdrew only a few drops of a blood-stained fluid. Notwithstanding this fact, a hydatid of the liver was diagnosed by Dr. Engelhardt and his five colleagues, and laparotomy, with opening the supposed sac, was resolved upon. Accordingly, an incision, 8 centimeters long, was made, commencing 3 fingers' breadth from the costal arch and running down along the outer edge of the rectus abdominis. The peritoneum was found much thickened and extensively adherent to the liver. The false membranes having been divided and the parts explored, not a trace of any hydatid or any tumor could be detected. The liver proved to be quite smooth, though considerably enlarged. A trocar plunged deep into the latter removed nothing but a little blood. Having washed out the peritoneal cavity with a warm carbolic solution, the author inserted a drainage tube and closed the wound with carbolized silk sutures, including the peritoneum. The after-course was most satisfactory. The wound healed *per primam* about the 7th day (except the drainage site which united by granulations). Curiously enough, the patient's state strikingly improved in all regards, which circumstance was ascribed to a relief of portal congestion brought about by the operation. [It seems likely that the author had to deal with a case of wandering liver.—L.D.]—*Proceedings of the Smolensk Medical Society for 1888.*

XII. Case of Penetrating Stab-Wound of Abdomen, With Prolapse of Omentum. By Dr. LAZAR I. OFNEROVSKY (Sükhüm Kalë, Russia).—A peasant boy, æt. 9 years, of middling make and nutrition, when playing with his mates, was accidentally stabbed by a knife in his abdomen. His parents put a dirty rag on the wound and bandaged his abdomen with a towel, after which the boy returned to his play. On the next day; however, he commenced to complain of intense pain which was found to be caused by "something" protruding from the stab. Family surgical wit being exhausted, his father

took the patient on horse back and galloped to the author's lazaretto, ten miles distant. Examination revealed a wound, 3 centimetres long, situated in the epigastrium, in two fingers' breadth from the typhoid cartilage, somewhat to the right from the median line. A conical dark blue piece of the omentum, about 3 centimetres long, covered with mud, was found to be tightly strangulated in the wound. The part was washed out with a 0.1% corrosive sublimate solution, and then with a .3% carbolic one, and returned (fairly easily) into the abdominal cavity, after which the stab was closed with five interrupted silk sutures, including the whole thickness of the wall. The wound was powdered with iodoform and dressed after Scifasovsky's method with iodoform gauze, varnished paper and gauze roller bandage. The after-course was excellent. The sutures were removed on the ninth day, when the wound was found healed *per primam*. In a fortnight the boy was discharged well and sound. The favorable issue is attributed to strict antiseptic precautions. Dr. Osherovsky emphasizes the fact that a protruding omentum may be successfully returned into the abdomen even after having been out and in contact with mud and dirt for 48 hours. He quotes similar cases published by Gëdëvanoff (ANNALS OF SURGERY, August, 1888, p. 140), Beklemisheff (*ibid*, p. 146) and others.—*Proceedings of the Caucasian (Tiflis) Medical Society*, 1889, No. 16.

VALERIUS IDELSON (Berne).

ULCERS, ABSCESES, TUMORS.

I. The Transplantation of Large Strips of Skin in Crural Ulcers. By Dr. K. S. SILBERNIK (Lebedin, Russia). The author adduces two cases of inveterate large crural ulcers accompanied by intense infiltration and ulceration of subjacent muscles, in which he successfully resorted to Maas' autoplasty, that is, to the transplantation of large pieces of skin from the patient himself. In one case the ulcer measured 15x13 cm.; it was covered with a strip cut out from the patient's opposite leg, and having the size of 19x13 cm. In the other patient, a similarly extensive surface was covered with lateral flaps from the same leg. Dr. Silbernik lays down the following

general propositions: 1. In neglected large and deep ulcers of the leg (so often met with amongst peasants and artisans, as far as Russia is concerned), the best treatment consists in transplanting large strips of skin from the patient's own person, which often allows saving of the diseased limb (the other alternative being amputation). As to ordinary means, they are either wholly useless, or, even if cicatrization is obtained, the scar proves to have a pronounced tendency to breaking down and ulceration.

2. Of the two methods of autoplasty the transplantation of lateral flaps from the neighborhood of the ulcer is less complicated and less laborious, and causes less discomfort to the patient. However, the procedure is practicable only *a*, when the ulcer is situated longitudinally, and *b*, when the integuments in its neighborhood are healthy. On the whole, the choice of this or that plastic method should be determined by peculiarities of the individual case.—*Transactions of the Third General Meeting of Russian Medical Men at St. Petersburg*, Nos. 2 and 8, 1889.

II. Incisions in Atonic, Callous Ulcers of the Leg. By Dr. IVAN A. PRAXIN (St. Petersburg). The author warmly recommends a simple method of treatment successfully practised by him in atonic crural ulcers with sclerotized edges. The method consists in making multiple dry radial incisions penetrating through the whole thickness of the edge, and situated so that the inner third of each incision divides the granulating bottom of the ulcer, the middle one its edge, and the outer third the adjacent healthy skin. The distance between the incisions should be equal approximately to two or three breadths of the edge. To secure gaping, plugs should be inserted into each wound for a few first days. When treated after the plan, callous ulcers, varying in size from a penny piece to a half of the palm, are said to heal as swiftly as any simple ulcer, provided their neighborhood is free from inflammatory œdema and venous congestion.—*Transactions of the Third General Meeting of Russian Medical Men at St. Petersburg*, No. 8, 1889.

VALERIUS IDELSON (Berne).

III. The Iodoform Treatment of Tuberculous Abscess with Especial Reference to Spondylitic Abscess. By Prof. P. BRUNS (Tubingen). Prof. Bruns has tested the iodoform injections upon upwards of 100 cold abscesses. These abscesses resulted in different cases from disease of the vertebral column or sternum (caries). In order to test more completely the action of iodoform alone, the vehicles for the iodoform were glycerine or olive oil, the latter (1-10). Twenty cases were treated with injections of iodoform and glycerine. The remaining cases were injected with the oily solution of iodoform. In smaller abscesses a period of two to four weeks passes before any noticeable change in the size of the abscess occurs. In larger abscesses four to eight weeks elapse before any noticeable improvement takes place. The author calls special attention to the above facts. Two to four months elapse before a complete cure results in larger abscesses. He gives the details of some of the cases treated in this manner. In some cases the amount of pus evacuated at various sittings (twelve in some), amounted in toto to 5,000 c.cm., showing the large size of some of the abscesses. The amount of the injection, at intervals varying from three to four weeks, was in some cases 30 grammes of the iodoform solution to 100 grammes in others. Of 12 cold abscesses treated thus, 10 were fully cured. The duration of treatment varied from two to six months. The author has collected from a search of the literature 35 spondylitic psoas abscesses treated by iodoform injections; 24 of this number were completely cured, 5 improved, 4 unimproved, and in 2 the result remains unknown. The author concludes from these figures and his own experience that the iodoform treatment of these abscesses is most encouraging — *Beiträge f. klinische Chirurgie*, Bd. 4, heft 1.

HENRY KOPLIK (New York).

IV. The Curative Effect of Erysipelas Upon Tumors. By P. BRUNS (Tubingen). The author gathered and criticised the notes upon the literature of this subject, 22 cases, including one of his own, of melano-sarcoma of the breast, in which a final cure followed an attack of erysipelas. Out of 5 sarcomata, 3 were permanently cured, while the other two were dimini-

ished in size, but soon returned to their former size. Failure followed in 6 cases, in which the diagnosis between carcinoma and sarcoma was not definitely settled, as also in 3 cases of ulcerative epithelioma. Cure is reported as having followed the invasion of erysipelas in cicatricial keloid and lymphomata.

Attempts at cure of inoperable tumors by the inoculation of erysipelas have been made by W. Busch and Fehleisen, with but partial success. Janicke (*Centralblatt f. klinisch. Chirurg.*, 1881) obtained positive results in mammary carcinoma.

Not only the above class of cases, but chronic diseases of the skin, venereal sores, etc., have been benefited by the invasion of erysipelas, but fatty degeneration and resorption of the cellular elements, according to the author, have occurred spontaneously in the course of typhus, pyæmia, etc. It is to be regretted that we have no reliable means, despite the use of pure cultures, of inoculating erysipelas. This is shown by 2 cases (von Bruns and Biedert), which, despite repeated attempts at inoculation, resisted the influence of erysipelas.—*Beitrage zur klinisch. Chirurg.*, Bd. iii., heft 3.

G. R. FOWLER (Brooklyn).

V. **The Morton Lecture on Cancer.** By Sir SPENCER WELLS (London). Perhaps the most salient feature of Sir Spencer Wells's address is the statement he makes as to the increasing prevalence of cancer, more particularly in the male sex in middle life. Making every allowance for increase of population, for better registration and more careful diagnosis, he states that the cancer mortality in England and Wales has increased during the last 26 years (1861 to 1887) from 360 to 606 per million, and a similar but not so marked an increase has occurred in Ireland, Scotland and New York. The importance of such a statement as this is sufficiently obvious, and Sir Spencer Wells devoted a considerable part of his lecture to the discussion of these figures. After a brief allusion to the latest contributions to the etiology of cancer (particularly Scheuerlen's so-called cancer bacillus) the lecturer proceeded to deal with a few practical questions. Thus, with regard to amputation of the breast, he advised complete removal of

the whole organ in every case of cancer, unless the growth was small and close to the margin of the gland or only affected outlying portions of the gland. Nor is it necessary to remove the breast in those cases where there is an axillary tumor but no growth in the breast itself, as these probably belong to a special class of tumors originating in the sweat glands.

As regards treatment, the lecturer expressed his disbelief in any so-called cure by caustics, and devoted the remaining part of his lecture to the consideration of the best method of operating in cancer of the uterus. He is in favor of extirpation by the vaginal method, and quotes statistics more particularly from Olshausen to show how successful this method is.

J. ANDERSON SMITH (London).

VI. A Case of Primary Sarcoma of the Supra-Renal Capsule. By Dr. CARL BARTH (Vienna). Primary carcinomata and sarcomata of the supra-renal capsule are extremely rare, and but few cases have been published.

The case was as follows: Jos. L., æt. 55 years, laborer, came in the hospital on October 14, 1888, on account of an abdominal tumor. Up to two years ago the patient was quite healthy; then he had an attack of pneumonia from which he recovered perfectly. Last June he began to complain of pain in the left hypochondrium, which radiated towards the thorax, but no backache. In August he noticed a distention of his abdomen, and one month later a growth in the region of the stomach, which gradually increased, and felt harder at first than now. His appetite diminished, and he complained of nausea, but no vomiting; but ingestion of food caused no special inconvenience, and no change in the volume of the tumor. No jaundice, bowels constipated; never passed blood at stool. Patient has emaciated considerably.

Examination of patient shows a well-built man, extremely thin, of a generally muddy complexion. Pulse and respiration somewhat accelerated. Thorax is a little bulged out in its lower part. Heart and lungs normal. Above and a little external to the right nipple are two small

lumps about the size of a pea. Abdomen prominent; the skin over it is tense and oedematous; veins on the left side enlarged. The resistance is increased, especially in the epigastrium and in the left mesogastrium; no localized pain. Distinct fluctuation in lower part of abdomen. In epigastrium there is an elastic tumor about the size of a child's head, which is limited above by the xyphoid process, and ends in a sharp hard bunch at four fingers' breadth from the umbilicus. On the left side the tumor fills up the whole hypochondrium and ends about a hand's breadth under the ribs. The position of the tumor is not altered by respiration. There is besides this, in the left mesogastrium a horizontally-running cord, which feels like a distended intestine. Percussion over this gives a hollow note which merges directly into the tympanitic note of the surrounding intestine. The spleen dulness which begins at the 6th rib cannot be limited to the right and below. Examination of the blood shows nothing abnormal.

On October 16 the patient complained of severe paroxysmal pains, which only ceased by bending the body completely forward, and for this reason the patient keeps this position continually.

October 18. Tumor in epigastrium feels softer and fluctuates distinctly. Exploratory puncture gives clear blood, somewhat mixed with fat. Microscopical examination reveals besides blood discs, some pigment granules.

November 2. Patient has emaciated considerably and is somewhat cyanotic. Temperature, 35°C.

November 3. Cyanosis has increased. Patient unconscious. Temperature 35°. Died that evening.

The autopsy showed a medullary sarcoma of the supra-renal capsule together with sarcoma of the liver. The sarcoma was of the small spindle cell variety.

One of the symptoms which was for a long time held as a characteristic of disease of the supra-renal capsule, namely, the bronze color or pigmentation of the skin, was entirely wanting in this case. A symptom not often mentioned in the books, but which is found in Addison's disease, that is, the low or subnormal temperature, was present in this case.

Experiments in animals have shown that removal of the supra renal capsule causes a constant lowering of the temperature. In the light of these experiments and with the reports of cases of Addison's disease, a constant subnormal temperature should give rise to the thought of disease of the supra-renal capsule.—*Wiener Med. Woch.*, Nos. 10 and 11, 1889.

F. C. HUSSON (New York).

BONES, JOINTS, ORTHOPÆDIC.

I. Detachment of the Carpal Epiphysis of the Ulna. By J. HUTCHINSON, F.R.S. (London). Mr. Hutchinson relates the case of a young man who, in early life, had sustained an injury to the wrist resulting in detachment of the carpal epiphysis of the ulna. The consequences being arrest of growth of the ulna, the radius growing naturally has pushed the hand over to the ulnar side, producing a permanent deformity. No precise diagnosis was made at the time of the accident, though probably the carpal epiphysis of the ulna was detached, rare as this is.

Similar deformities are occasionally seen at the ankle joint, due to injury to one or other of the epiphysis.—*Illustr. Med. News*, Nov. 17, 1888.

J. ANDERSON SMITH (London).

II. On Flexure of the Femoral Neck in Adolescence. An Undescribed Trouble. By Dr. E. MÜLLER (Tübingen). This refers to a class of cases of which he has observed several within a few years, and yet of which he could find no mention. The course of the affection is as follows: In persons of 14 to 18 years, without special cause or from a slight injury, there develops a painfulness of one hip, then limping gait, too easy fatigue and gradual shortening of this leg. The symptoms are not very rapid or severe. The patients are otherwise healthy. There is no shortening from trochanter to external malleolus, but the trochanter is 2 or 3 cm. too high. There is no swelling. The leg is slightly rotated outward, extended or slightly flexed at the hip. Motion at the hip, especially flexion, is but slightly limited, more so rotation and abduction. In one case where

flexion and extension were considerably limited, it became quite free and without friction under narcosis, showing that the caput was in a healthy joint; abduction and rotation were still impeded. The shortening, then, must depend upon a pushing up of the diaphysis on the epiphysis, *i. e.* upon a diminution of the angle between shaft and neck of femur. A separation of the epiphyseal line is excluded.

Exsection in one case demonstrated these points. The femoral neck seemed to have been pressed down as though of soft material; its upper line was lengthened (from $3\frac{1}{2}$ to 7 cm.) horizontal, whilst its lower line was shortened (from 4 to $1\frac{1}{2}$ +). The joint cartilage was intact. The epiphyseal line was a sharp curve convex toward the joint, the whole effect resembling that in an impaction fracture. This explained the imperfect abduction even in narcosis.

The inner architecture is correspondingly altered. The Adams' arch is very materially thickened: The compact bone on the inner side of the femoral neck was $1\frac{1}{2}$ cm. thick. The arrangement of the lamellæ in the spongiosa was modified in the same sense, *i. e.*, to support the new lines of pressure. There was nothing abnormal in the consistency of the bone, in its surface or joint cartilage, nor microscopically anything characteristic. As to the nature of the process he rules out osteomalacia, osteitis deformans and osteomyelitis, and decides for an irregular late form of rachitis, as Mickulicz has done for genu valgum (deformity from overloading), though real proof is wanting. Four cases and a drawing from a section of the removed head of the femur accompany the article.—*Bruns: Beiträge f. klin. Chirg.*, 1888. Bd. iv., hft. i.

III. The Final Results of Knee-Joint Resections Since the Introduction of Antiseptic Wound Treatment and Artificial Blood Constriction. By F. HITZEGRAD (Kiel). The former mortality of 50% was reduced by these agencies to 20%, then to 13%, and since the use of permanent dressings so far that fatal cases are the exception. Equally favorable is the proportion of cures. Yet despite these successes various German surgeons have advocated arthrec- to my (for tubercular gonitis) instead, on account of functional results.

He here gives the results, immediate and late, of the cases, 115 in all, operated in Esmarch's clinic from 1874 to 1884 inclusive. Brief details of each case are given, including in many those found by Mensing (*Dissertation*, Kiel, 1883).

Of these 115 resections, 102 were typical, 4 partial and 9 enneiform (for angular ankylosis). The trouble was, in 102 chronic gonitis, in 9 ankylosis from previous chronic gonitis; in 1 each osteomyelitis, shot-injury, rheumatic polyarthritis and purulent gonitis. As to *etiology* in the 111 cases of tubercular gonitis, 79 were spontaneous, 23 from fall or blow, 2 each from stab, over-strain and tibial ostitis, 1 each from scarlatina, distorsion and throwing a stone. *Hereditary disposition* proven in 43, absent in 39, questionable in 17, instated in 12. There were 62 males and 53 females. All but 4 were under 30 years. The result was in 84 (73%) a cure—11 of these after secondary amputation; in 25 (21.8%) an imperfect cure, *i. e.*, a fistula remaining—1 of these after secondary amputation; in 6 (5.2%) death in hospital. The 21 from the time of the typical Lister dressing show 14.3% of fatal cases, whilst the 94 since the use of permanent dressings show only 3.2%.

In his region the synovial form exceeds the ossal. Somewhat at variance with Volkmann, he finds that in youth, up to 17 years, the primary synovial exceeds the ossal (36 to 24), whilst in those older the reverse occurred (14 to 18). The *duration of treatment* in the 73 cured cases averaged 85 days.

As to the *later results* of the operation, he has hunted up 63 of the cases—some discharged as cured, others as not cured—in all of which at least two years had passed since the operation, the average being 5½ years. In these subsequent years 4 have died, 2 from tuberculosis after 8 and 2 years; 1 from acute fatty liver; 1 from sarcoma. There were 8 *relapses* requiring further operation, all in children of from 3 to 14 years at first treatment. These occurred after ½ to 6 years, 3 falling in the second subsequent year.

The *usefulness* of the resected limb was *good* to *excellent* in 50 (91%), poor in 5. The *general health* was undisturbed in 48; 1 suffered from epilepsy, 1 presented dulness at apex of one lung, 2 had

fistulæ. In 3 mobility of the joint was stated, 1 of these having been only a partial resection. In 34 of 61 (56%) the limb remained straight; in 19 slightly flexed; in 3 more flexed; in 2 varus; in 3 valgus. Of the 22 more or less flexed, 16 were at an angle before the resection. Of the 19 slightly flexed 2 were so when discharged.

Angular ankylosis might be entirely avoided by wearing protective dressings until bony union had occurred. But as this may not occur for some years, in children, everything should be done to secure it.

1. Prevent relapses by removing all that is diseased.
2. Place the largest possible surfaces of sawed bone firmly in apposition.
3. Stimulate bone formation by mild prolonged irritation.
4. Prevent too long inactivity, that the bones do not become osteoporous and unable to carry the body weight.

For the first of these demands he defends, against Volkmann, the elastic constriction. The second and third demands are met by long nails driven through the soft parts and bone so as to fix the ends. These remain 4 or 5 weeks and exert a continuous irritation. From the 5 years that this has been practiced he has 33 cases with 19 (58%) permanently straight, whilst of 28 previous cases there are 15 (54%).

A subsequent *lengthening* of the resected extremity was observed in only 1. Slight shortening is the rule in patients from 1 to 10 and from 18 to 50 years old; moderate shortening (6 to 16 cm.) in those from 11 to 17 years old. By a comparison of the shortening with the patient's height he makes out (partly by a mistake in his percentages) that a relatively small shortening is the far more frequent result. He confirms former investigations in that the danger of retardition in growth is proportional to the size of the excised wedge.

He finally emphasizes the good results of this operation as now performed, and predicts its further usefulness. Various tabular comparisons with other reports, old and new, are given, as also a series of illustrations including views of the bone and its section from an old case.

—*Mittheilungen a. d. chirurg. Klinik zu Kiel*, iv, 1888.

WILLIAM BROWNING (Brooklyn).

IV, Multiple Fractures and Softening of the Bones in Infants. T. COLCOTT FOX, M.R.C.P. (London). Multiple and more or less symmetrical fractures are usually met with in infants in association with rickets, and may also occur combined with separation of the epiphyses, in severe cases of infantile scurvy. Hereditary syphilis may also cause fragility and softening of the bones, generally close to the cartilages. In some cases of rickets considerable change may occur in the diaphyses, whilst the changes about the epiphyses may be very little marked; although, of course, as a rule these latter are much more marked than the former.

Fractures, especially if complete, are often overlooked in these cases, partly from the fact that their presence does not give rise to any great additional pain, partly to the fact that crepitation is seldom observed, there is no great callus thrown out, and partly from the general softness and flexibility of the bones masking the separation. Dr. Fox then relates the following case:

F. G., æt. 16 months, prostrate, wasted condition; enlarged liver and spleen; clavicles much bent, flattening at upper part of chest; humerus bent out and forward, and fractured about middle of the shaft; leg-bones straight and not fractured. Wrists and ankles hardly, if at all, enlarged, but showing rickety changes in microscopic section. Ribs beaded on the minor aspect. Skull thin and craniotabetic in patches, no bones. All the bones very soft and easily cut. Death two days after admission.

No history of syphilis, and the child was suckled up to four months, and then fed on artificial foods.

The next case is somewhat similar, only that the child was older (2 years), and that she recovered. In her case both femora, forearm bones and right clavicle were fractured.

Lastly Dr. Fox relates a case due to syphilis, in a child æt. 8 months. Here the changes took place chiefly at the epiphyses, causing separation, there also appears to have been a fracture $1\frac{1}{2}$ inches below the great trochanter of the left femur,—*Illustr. Med. News*, Oct. 1888.

J. ANDERSON SMITH (London).

V. Fractures of the Cervical Vertebrae and their Cure.

By E. SONNENBERG (Berlin). At a meeting of the Berlin Medical Society, January 23, 1889, Sonnenberg showed an extremely rare specimen of a healed fracture of the cervical vertebrae. It was a fracture of the bodies of the sixth and seventh cervical vertebrae. The latter is completely crushed, and the former is split into several pieces, which have penetrated into the body of the seventh cervical vertebra. Quite considerable dislocation had taken place, in such a way that a knob about $2\frac{1}{2}$ cm. long and $1\frac{1}{2}$ cm. wide protruded into the vertebral canal. Alongside of this knob there is a furrow, in some places 13, and in others 15 mm. wide, which evidently received the spinal cord. The cervical spine had undergone a rotation from left to right and formed an obtuse angle with the dorsal spine. The patient acquired the fracture by a fall from a tree, and was brought into the hospital paralyzed. The paralysis of the lower extremity lasted quite a time, but gradually improved, and then disappeared completely, so that the patient could earn his livelihood as a porter. The case shows that fractures of the cervical vertebrae can heal, notwithstanding marked dislocation. Notwithstanding the severe bone injury there was no direct injury to the cord, only a compression, and this probably only by an extravasation of blood. Leaving out fractures of the first and second cervical vertebrae, there are on record 16 well-authenticated cases of fracture of the vertebrae when autopsy years after showed the correctness of the diagnosis, and in no case was the damage to the bone as extensive as in this one.

Paralyses after fractures of the cervical vertebrae are extremely irregular both in the way they appear and in their course. Even in the cases in which death occurs a short time after the accident it is not necessary for the paralyses to come on immediately, on the other hand paralyses may come on and the case go on to a cure. The recorded cases of late and gradual paralyses are due to the formation of a gradual dislocation, or by the gradual increase of a blood extravasation, and by their agencies sudden death may be caused.

It is to be remembered that the cervical canal is relatively very large, and in the beginning, a slight dislocation or extravasation need

not cause any symptoms of compression.—*Deut. med. Woch.* No. 5 Jan. 31, 1889.

F. C. HUSSON (New York).

GENITO-URINARY ORGANS.

Removal of the Kidney. By MAX SCHEDE (Hamburg). At a meeting of the Hamburg Medical Society, held July 10, 1888, Dr. Schede read a paper on 20 cases of extirpation of the kidney.

The indications for removal and the results are briefly as follows:

| | | | | |
|-----------------------------------|-------|----------|----------|----------|
| Tumor of the kidney | - - - | 3 cases. | 2 cures. | 1 death. |
| Rupture of the kidney | - - - | 1 " | | 1 " |
| Hydronephrosis of floating kidney | 2 " | 1 " | 1 " | 1 " |
| Simple hydronephrosis | - - - | 1 " | 1 " | |
| Renal fistula | - - - | 2 " | 2 " | |
| Pyonephrosis | - - - | 4 " | 2 " | 2 " |
| Tubercular pyonephrosis | - - - | 3 " | 2 imp'd | 1 " |
| Incurable utero ureteral fistula | 1 " | | 1 cure. | |

In vaginal hysterectomy for carcinoma uteri, where ureter was found involved and had to be removed, 3 cases; 2 cured, 1 died. In short, 11 cases were cured, 2 improved, 7 died within the first few days after the operation, some of which were operated on under the most unfavorable circumstances.

Although Dr. Schede's mortality is only 35%, which is a great gain over that of 44.6% given by Gross in 1885, still he thinks that his figures can be considerably lowered.

The great advance in the diagnostic methods which have been made within the past few years will prevent many mistakes and interference in hopeless cases, and the absolute rejection of the transperitoneal method, which will only be used in a few very exceptional cases, and its replacement by the almost harmless retroperitoneal lumbar incision, will, without doubt, reduce the death rate to a still lower figure.—*Deutsche Med. Woch.*, No. 52, 1888.

F. C. HUSSON (New York).

II. The Diagnosis of Renal Calculus and its Removal by Operative Interference. By W. BRUCE CLARK, F.R.C.S.

(London). After some general remarks as to the general advantage of early operative interference in cases of renal calculus, Mr. Bruce Clark records the 5 following cases. Three out of the five were male and all comparatively young, the oldest being only 48 and the others 25, 25, 27, and 29 years respectively. Pain in the loins occurred in every case; in one of the cases of 17 years duration with occasional intervals between the attacks; hæmaturia generally slight was present in 4 out of the 5 cases. In 1 case there were occasional attacks of retention of urine; no stone had been passed and during the operation no stone was discovered, but four days afterwards a small calculus about the size of a pea was found in the drainage tube. At the time of the operation a small longitudinal incision was made in the ureter and the passage washed out and explored both towards the kidney and the bladder, but no stone was felt. The onset of the symptoms in the 5th case seems to have been coincident with a first pregnancy. The symptoms lasted 3 years in all and were chiefly lumbar pains and occasional pyuria. On exploration a gravel calculus was extracted from the lower part of the kidney and in about four weeks time the patient left the hospital with the wound healed and free from pain. Two deaths are recorded; one occurred from cancer of the liver and omentum, possibly also the kidney, a year after operation; the 2d was due to excessive vomiting and suppression of urine, coming on after the operation; no other calculi were found at the autopsy, but the state of the other kidney is not mentioned.—*Ill. Med. News*, Sept. 29, 1888.

Hæmorrhage after Internal Urethrotomy for Stricture of the Membranous Urethra. By HURRY FENWICK, F.R.C.S. (London). One of the chief dangers of internal urethrotomy—which the author prefers to adopt in suitable cases, rather than the divulsion method—is hæmorrhage. “Nowhere is this hæmorrhage more profuse or less under control than where the section has involved the upper wall of the deep or membranous urethra.” This is owing to the close proximity of the dorsal vein and the plexus of Santorini, placed

somewhat posteriorly, each of which may be wounded by too large a cutting blade or by depressing the handle of the instrument too much. The author then goes on to describe the anatomy of the part so as to further accentuate this danger. He then relates a case of fatal hæmorrhage after internal urethrotomy from wound of the dorsal vein and plexus of Santorini. In the comparatively rare cases where the stricture is situated in this "dangerous area" of the urethra the author recommends that "Either a very small Teevan urethrotomic (8-10 French gauge) should cut through the inner rim of the stricture on its upper surface a little to one side and that a division should complete the operation, or the stricture should be cut through by electrolysis."

--*Ill. Med. News.*

J. ANDERSON SMITH (London).

II. Varicocele, Particularly With Reference to Its Radical Cure. By W. H. BENNETT, F.R.C.S. (London).—When circumstances warrant surgical interference in this disease Mr. Bennett recommends the following operation: His opinion is that any operation to ultimately prove successful must embrace a plan for an immediate and permanent shortening of the cord. He claims that the operation is not more severe than any of the other open operations. The patient having been anæsthetized, the veins are made prominent and put somewhat on the stretch by grasping the varicocele between the fingers and thumb of the left hand, care being taken at the same time that the vas deferens is pressed back, out of the way of harm. Through the skin, over the veins thus made prominent, an incision is made which in no case need exceed an inch and a half in length. One or two touches of the scalpel will now suffice, the veins being pressed well forward, to expose the thin fascia (immediately surrounding the varicocele), through which the vessels can be plainly seen. The knife is now laid aside, the veins not having been actually denuded. By means of an aneurysm needle or eyed probe a thoroughly carbolized tendon is passed round the fascia referred to with its included veins, and drawn down to a point as near the testicle as is thought proper; it is then securely tied, the ends being left long. The varicocele above

this ligature is securely freed, together with the sheath, from the surrounding parts by a few sweeps of the finger for a distance sufficient to allow of the length previously decided upon, as approximate for excision to be drawn out of the wound. A second tendon is now passed around the upper end of the freed veins and tied in a single knot only, which is kept tight by an assistant. The portion of the varicocele included between the ligatures is divided above and below, about a quarter of an inch (not less) from the corresponding ligature and removed. The upper ligature is then finally tied and its knotting completed, the ends being left long as before. The wound having been freely irrigated with warm sublimate solution, and all bleeding (be it ever so slight) arrested, the cut ends of the stump left by the division of the varicocele are brought together and retained in permanent apposition by knotting the ends of the upper ligature to those of the lower, thus at once raising the testicle to about its natural level. The ligature ends are now cut off quite short and the operation is completed. The edges of the skin fall together; there is no need of either suture or drainage-tube, and all that remains necessary is the careful application of the antiseptic dressing. By leaving the sheath of fascia which immediately surrounds the varicocele intact, and including it, with the veins, in the ligature, two objects are attained: (1) the certainty of passing the tendon around all the affected vessels, as none of these ever lie outside the fascia; and (2) the prevention of any material chance of recurrence of the abnormally dependent position of the testicle, which is probable if the veins are denuded before the ligatures are applied and the stumps brought together in the manner described and it is manifest that the weight of the testis would tend to drag the veins considerably out from the sheath above, whereas this fascia, if included in the ligature, not only obviates this tendency, but, in fact, also carries the weight of the dependent organ without stretching to any appreciable extent. The postponement of the final tightening and knotting of the upper ligature till after the division of the veins is a point of importance, as there is some risk, if the tying be completed before division, that the shrinking of the veins which follows the escape of blood contained in them may result in the ligature

becoming sufficiently loose to allow of oozing of blood into the wound, and may even permit the stump to escape from the ligature altogether, in which case the primary object of this particular operation would be defeated. If the operation is properly done everything should go on well. At the end of a week the patient may usually be allowed out of bed, and generally gets about in a fortnight. The method by shortening the scrotum is useless in practice and unsound in theory, since it is based on an entire misapprehension as to the functional relation of the scrotum to the testis. To whatever degree the scrotum may be diminished in size by operation, it will again become rapidly stretched until a length is acquired which will be determined by the lowest point attainable by the testis as it hangs at the end of the elongated cord. On the other hand, if the testicle is raised by shortening the cord, the scrotum will, be it ever so long and flaccid, spontaneously contract and accurately adapt itself to the testicle in its new position.—*Lancet*, February 9, 1889.

H. H. TAYLOR (London).